

In the Claims:

Please amend the claims as follows:

1. (cancelled)
2. (cancelled)
3. (currently amended) The sensor according to claim 1 16, wherein at least one of the two areas is provided in its entirety or partially with color filters in order to image the object in color.
4. (currently amended) The sensor according to claim 1 16, wherein the first area is designed as a matrix having N rows and M columns, that the second area is designed as a matrix having X rows and Y columns and that Y is b multiplied by M columns, where b is an integer greater than zero.
5. (previously amended) The sensor according to claim 4, wherein time delay integration is used on the second area.
6. (currently amended) The sensor according to claim 1 16, wherein at least one of the areas is provided with filters for different wavelengths in order to minimize crosstalk.

7. (currently amended) The sensor according to claim 1 ~~16~~, wherein the first area and the second area are arranged parallel in a transverse direction as one integral unit.

8. (currently amended) The sensor according to claim 1 ~~16~~, wherein the first area and the second area are arranged parallel in a transverse direction as two separate units.

9. (currently amended) A system for measuring character-dependent parameters of an object, the system comprising:

at least one light source, ~~which~~ that emits light towards the object, ~~wherein the system~~
~~further comprises~~

a sensor comprising a first area of pixels having a first degree of resolution, the first area imaging three-dimensional characteristics of the object; and a second area of pixels having a second degree of resolution different from the first degree of resolution, the second area imaging two-dimensional characteristics of the object, wherein the first area of pixels and the second area of pixels according to claim 1, arranged to absorb electro-magnetic radiation from the object and to convert it into electrical charges.

10. (currently amended) The system according to claim 9, ~~wherein the system also~~
~~comprises~~ further comprising:

an output register arranged to read out the charges received in the sensor.

11. (currently amended) The system according to claim 9, ~~wherein the system also~~
~~comprises~~ further comprising:

at least two output registers arranged to read out the charges received in the sensor.

12. (previously amended) The sensor according to claim 11, wherein the first area and the second area of the sensor are each read out on their own output register.

13. (previously amended) The sensor according to claim 11, wherein if the second area of the sensor is provided with color filters, each color picked up has its own output register.

14. (currently amended) The system according to claim 10, ~~wherein the system further comprises~~ further comprising:

an A/D converter arranged to convert the electrical charges from an analog to a digital format and that the output register is a digital output register.

15. (currently amended) The system according to claim 9, ~~wherein the system also comprises~~ further comprising:

an image/signal processing unit arranged to ~~analyze~~ analyze the electrical charges.

16. (new) A sensor for imaging characteristics of an object, comprising:

a first area of pixels having a first degree of resolution, the first area imaging three-dimensional characteristics of the object; and

a second area of pixels having a second degree of resolution different from the first degree of resolution, the second area imaging two-dimensional characteristics of the object,

wherein the first area of pixels and the second area of pixels absorb electromagnetic

radiation from the object and convert the radiation absorbed into electrical charges.

17. (new) The sensor according to claim 16, wherein the three-dimensional characteristics include width, height, and volume.

18. (new) The sensor according to claim 16, wherein the two-dimensional characteristics include cracks, structural orientation, and position.